Mr. Edward W. Rider, Jr.
Genpak, LLC
845 South Elm Street
Scottsburg, Indiana, 47170

Re: **SSM 143-12416-00016**
Significant Source Modification to
Part 70 No.: T143-11375-00016

Dear Mr. Rider:

Genpak, LLC's application for a Part 70 permit (T143-11375-00016) for the existing stationary source extruding and forming polystyrene foam products was received on September 24, 1999 and is currently being reviewed by IDEM. A letter requesting changes to this permit was received on September 28, 1999. Pursuant to the provisions of 326 IAC 2-7-12 a significant source modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the construction of the following emission units and pollution control devices related to the operation of the polystyrene extrusion operations:

(a) Three (3) polystyrene foam tandem extruders, identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene, and exhausting through INCIN-1, and

(b) One (1) Recuperative Thermal Oxidizer with a rated heat input of 1.0 million British thermal units (mmBtu) per hour, and exhausting through INCIN-1. This unit will control the existing repelletizer emissions.

Operation of the new equipment incorporated into the Part 70 operating permit by this amendment may commence operation upon issuance of this approval. This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter please contact Phillip Ritz, at 973-575-2555 (ext. 3241) or 1-800-451-6027 press 0 and ask for extension 3-6878.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
PR/EVP
cc: File - Scott County
U.S. EPA, Region V
Scott County Health Department
Air Compliance Section Inspector Joe Foyst
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michelle Boner

PART 70 SIGNIFICANT SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

Genpak, LLC
845 South Elm Street
Scottsburg, Indiana, 47170

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Significant Source Modification No.:SSM143-12416-00016	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

TABLE OF CONTENTS

SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary source extruding and forming polystyrene foam products.

Responsible Official:	Edward W. Rider, Jr.
Source Address:	845 South Elm Street, Scottsburg, Indiana, 47170
Mailing Address:	845 South Elm Street, Scottsburg, Indiana, 47170
Phone Number:	812-752-3111
SIC Code:	3089
County Location:	Scott
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

(a) Three (3) polystyrene foam tandem extruders, identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene, and exhausting through INCIN, and

(b) One (1) Recuperative Thermal Oxidizer with a rated heat input of 1.0 million British thermal units (mmBtu) per hour, and exhausting through INCIN-1. This unit will control the existing repelletizer emissions.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

(c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.

(2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go thru a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

(3) If the Title V permit has not gone thru final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

(b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

Testing Requirements [326 IAC 2-7-6(1)]

C.6 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.7 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.8 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this approval;

(3) The Compliance Monitoring Requirements in Section D of this approval;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.9 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.10 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.11 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this approval;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.12 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM on or before the date it is due.

(c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:
(a) Three (3) polystyrene foam tandem extruders, identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene, and exhausting through INCIN, and
(b) One (1) Recuperative Thermal Oxidizer with a rated heat input of 1.0 million British thermal units (mmBtu) per hour, and exhausting through INCIN-1. This unit will control the existing repelletizer emissions.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

That pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) for the stationary polystyrene foam extrusion operation has been determined to be VOC emission control by a recuperative thermal oxidizer controlling exhaust from the repelletizer for three (3) polystyrene extrusion lines, controlling 114 tons of VOC emissions per year. The source shall meet the following:

(a) The recuperative thermal oxidizer shall be used at all times that the polystyrene foam repelletizing line is in operation.

(b) Compliance tests in Condition D.1.3 are necessary and will be used to develop surrogate parameters.

(c) That usage of VOC, delivered to the three (3) polystyrene extrusion lines shall be limited to 906.66 tons per twelve (12) month consecutive period. This is equivalent to VOC emissions of 170.43 tons per twelve (12) month consecutive period. During the first 365 days of operation, VOC usage shall be limited such that the total VOC used divided by accumulated months of operation shall not exceed the limits specified.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for only the control devices of these facilities.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

To demonstrate compliance with the minimum 80.75% overall control efficiency (including capture and destruction efficiency) required by condition D.1.1, within five (5) years after the date of the valid compliance demonstration required by Condition 7, Performance Testing, of Operation Permit 143-9851-00016, issued on November 19, 1998, the Permittee shall perform VOC testing utilizing Method 25 or other methods as approved by the Commissioner, to determine proper operating parameters for the thermal oxidizer, including minimum operating temperatures and fan speeds that will achieve 80.75% overall control efficiency (including capture and destruction efficiency) for this thermal incinerator. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.4 Monitoring

(a) That the thermal incinerator shall operate at all times that the polystyrene foam repelletizing line is operated and exhausting to the outside atmosphere. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1,400° F or a temperature, fan amperage and duct velocity determined in the compliance tests (described in Condition D.1.3) to maintain a minimum 80.75% overall control efficiency (including capture and destruction efficiency) of VOC emissions from the repelletizer for three (3) polystyrene extrusion lines.

(b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.5 Record Keeping Requirements

To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the usage of the blowing agent limits and/or the VOC emission limits established in Condition D.1.1.

(1) The amount and VOC content of each material used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

(2) A log of the dates of use;

(3) The total usage of the blowing agent for each month; and

(4) The weight of VOCs emitted for each compliance period.

(5) Records of the thermal incinerator combustion zone temperature shall be maintained.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Genpak, LLC
Source Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Mailing Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Source Modification No.: 143-12416-00016

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION

Part 70 Source Modification Quarterly Report

Source Name: Genpak, LLC
Source Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Mailing Address: 845 South Elm Street, Scottsburg, Indiana, 47170
Source Modification No.:143-12416-00016
Facility: Three (3) polystyrene extrusion lines EPS-1, EPS-2 and EPS-3
Parameter: Input VOC
Limit: That usage of VOC, delivered to the three (3) polystyrene extrusion lines shall be limited to 906.66 tons per twelve (12) month consecutive period. This is equivalent to VOC emissions of 170.43 tons per twelve (12) month consecutive period. During the first 365 days of operation, VOC usage shall be limited such that the total VOC used divided by accumulated months of operation shall not exceed the limits specified.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document (TSD) for a Significant Source Modification to a Part 70 Operating Permit

Source Name:	Genpak, LLC
Source Location:	845 South Elm Street, Scottsburg, Indiana, 47170
County:	Scott
Source Modification No.:	143-12416-00016
SIC Code:	3089
Permit Reviewer:	Phillip Ritz/EVP

On September 2, 2000, the Office of Air Management (OAM) had a notice published in the Scott County Journal in Scottsburg, Indiana, stating that Genpak, LLC had applied for a Significant Source Modification to a Part 70 Operating Permit to construct and operate emission units and pollution control devices related to the operation of polystyrene extrusion operations. The notice also stated that OAM proposed to issue a Significant Source Modification to a Part 70 Operating Permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On October 2, 2000, Erin Surinak of Keramida Environmental, Inc., submitted comments on behalf of Genpak, LLC on the proposed Significant Source Modification to a Part 70 Operating Permit. The summary of the comments and corresponding responses is as follows:

Comment 1

Regarding Condition C.5, we request clarification of the meaning of the phrase "in operation." The condition states that "All air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation." There are times that the equipment may be in an idling mode during which the processing is not actively occurring. We believe that periods of idling should not be considered as to be "in operation." This would enable us to conduct maintenance on control equipment during periods of process equipment idling. Please modify Condition C.5 to state that "in operation" is defined as any time materials are being extruded.

Response 1

The phrase “in operation”, in Condition C.5, refers to when the emission units are operating or emitting the pollutant being controlled. There have been no changes to the permit as a result of this comment.

Comment 2

Regarding Condition D.1.1(b), Volatile Organic Compounds (VOC), this condition erroneously refers to Condition D.1.4. This condition should reference Condition D.1.3.

Response 2

Condition D.1.1(b) has been revised to refer to condition D.1.3 (Testing Requirements). The changes to the permit are as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

That pursuant to 326 IAC 8-1-6, the Best Available Control Technology (BACT) for the stationary polystyrene foam extrusion operation has been determined to be VOC emission control by a recuperative thermal oxidizer controlling exhaust from the repelletizer for three (3) polystyrene extrusion lines, controlling 114 tons of VOC emissions per year. The source shall meet the following:

(a) The recuperative thermal oxidizer shall be used at all times that the polystyrene foam repelletizing line is in operation.

(b) Compliance tests in Condition D.1.~~4~~ **3** are necessary and will be used to develop surrogate parameters.

Condition D.1.4(a) has also been revised to refer to Condition D.1.3 (Testing Requirements). The changes to the permit are as follows:

D.1.4 Monitoring

(a) That the thermal incinerator shall operate at all times that the polystyrene foam repelletizing line is operated and exhausting to the outside atmosphere. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1,400° F or a temperature, fan amperage and duct velocity determined in the compliance tests (described in Condition D.1.~~4~~**3**) to maintain a minimum 80.75% overall control efficiency (including capture and destruction efficiency) of VOC emissions from the repelletizer for three (3) polystyrene extrusion lines.

Comment 3

Regarding Condition C.8, Compliance Monitoring Plan, we do not believe that 40 CFR Part 70 or 326 IAC 2-7 provides the authority to require the preparation of a Compliance Response Plan (CRP) or to establish the basis for a violation of the permit for failure to conduct the identified response steps. Failure to take specific response steps should not be interpreted in any way as evidence of non-compliance with an underlying applicable requirement, which is implied by this permit condition. In addition, failure to take response steps within the time prescribed in the Compliance Response Plan should not be a permit violation where no emission limitation or standard has been exceeded.

Responses 3

IDEM has worked with members of the Clean Air Act Advisory Council's Permit Committee, Indiana Manufacturing Association, Indiana Chamber of Commerce and individual applicants regarding the Preventive Maintenance Plan, the Compliance Monitoring Plan and the Compliance Response Plan. IDEM has clarified the preventive maintenance requirements by working with sources on draft language over the past two years. The plans are fully supported by rules promulgated by the Air Pollution Control Board. The plans are the mechanism each permittee will use to verify continuous compliance with its permit and the applicable rules and will form the basis for each permittee's Annual Compliance Certification. Each permittee’s ability to verify continuous compliance with its air pollution control requirements is a central goal of the Title V and FESOP permit programs.

The regulatory authority for and the essential elements of a compliance monitoring plan were clarified in IDEM's Compliance Monitoring Guidance, in May 1996. IDEM originally placed all the preventive maintenance requirements in the permit section titled “Preventive Maintenance Plan.” Under that section the permittee’s Preventive Maintenance Plan (PMP) had to set out requirements for the inspection and maintenance of equipment both on a routine basis and in response to monitoring. Routine maintenance was a set schedule of inspections and maintenance of the equipment. The second was inspection and maintenance in response to monitoring that showed that the equipment was not operating in its normal range. This monitoring would indicate that maintenance was required to prevent the exceedance of an emission limit or other permit requirement. The maintenance plan was to set out the "corrective actions" that the permittee would take in the event an inspection indicated an “out of specification situation,” and also set out the time frame for taking the corrective action. In addition, the PMP had to include a schedule for devising additional corrective actions for out of compliance situations that the source had not predicted in the PMP. All these plans, actions and schedules were part of the Preventive Maintenance Plan, with the purpose of maintaining the permittee’s equipment so that an exceedance of an emission limit or violation of other permit requirements could be prevented.

After issuing the first draft Title V permits on public notice in July of 1997, IDEM received comments from members of the regulated community regarding many of the draft permit terms, including the PMP requirements. One suggestion was that the corrective action and related schedule requirements be removed from the PMP requirement and placed into some other requirement in the permit. This suggestion was based, in some part, on the desire that a permittee's maintenance staff handle the routine maintenance of the equipment, and a permittee's environmental compliance and engineering staff handle the compliance monitoring and steps taken in reaction to an indication that the facility required maintenance to prevent an environmental problem.

IDEM carefully considered this suggestion and agreed to separate the "corrective actions" and related schedule requirements from the PMP. These requirements were placed into a separate requirement, which IDEM named the Compliance Response Plan (CRP). In response to another comment, IDEM changed the name of the "corrective actions" to "response steps." That is how the present CRP requirements became separated from the PMP requirement, and acquired their distinctive nomenclature.

Other comments sought clarification on whether the failure to follow the PMP was violation of the permit. The concern was that a permittee’s PMP might call for the permittee to have, for example, three "widget" replacement parts in inventory. If one widget was taken from inventory for use in maintenance, then the permittee might be in violation of the PMP, since there were no longer three widgets in inventory, as required by the PMP. Comments also expressed a view that if a maintenance employee was unexpectedly delayed in making the inspection under the PMP's schedule, for example by the employee's sudden illness, another permit violation could occur, even though the equipment was still functioning properly.

IDEM considered the comments and revised the PMP requirement so that if the permittee fails to follow its PMP, a permit violation will occur only if the lack of proper maintenance causes or contributes to a violation of any limitation on emissions or potential to emit. This was also the second basis for separating the compliance maintenance response steps from the PMP and placing them in the Compliance Response Plan (CRP). Unlike the PMP, the permittee must conduct the required monitoring and take any response steps (within the time frame prescribed in the Compliance Response Plan) as set out in the CRP (unless otherwise excused) or a permit violation will occur.

The Compliance Monitoring Plan is made up of the PMP, the CRP, the compliance monitoring and compliance determination requirements in section D of the permit, and the record keeping and reporting requirements in sections C and D. IDEM decided to list all these requirements under this new name, the Compliance Monitoring Plan (CMP), to distinguish them from the PMP requirements. The section D provisions set out which facilities must comply with the CMP requirement. The authority for the CMP provisions is found at 326 IAC 2-7-5(1), 2-7-5(3), 2-7-5(13), 2-7-6(1), 1-6-3 and 1-6-5.

Most permittees already have a plan for conducting preventive maintenance for the emission units and control devices. It is simply a good business practice to have identified the specific personnel whose job duties include inspecting, maintaining and repairing the emission control devices. The emission unit equipment and the emission control equipment may be covered by a written recommendation from the manufacturer set out schedules for the regular inspection and maintenance of the equipment. The permittee will usually have adopted an inspection and maintenance schedule that works for its particular equipment and process in order to keep equipment downtime to a minimum and achieve environmental compliance. The manufacturer may also have indicated, or the permittee may know from experience, what replacement parts should be kept on hand. The permittee may already keep sufficient spare parts on hand so that if a replacement is needed, it can be quickly installed, without a delay in the permittee's business activities and without an environmental violation. For the most part, the PMP can be created by combining present business practices and equipment manufacturer guidance into one document, the Preventive Maintenance Plan (PMP).

The permittee has 90 days to prepare, maintain and implement the PMP. IDEM is not going to draft the PMP. Permittees know their processes and equipment extremely well and are in the best position to draft the PMP. IDEM's air inspectors and permit staff will be available to assist the permittee with any questions about the PMP. IDEM may request a copy of the PMP to review and approve.

The Preventive Maintenance Plan requirement must be included in every applicable Title V permit pursuant to 326 IAC 2-7-5(13) and for each FESOP permit pursuant to 326 IAC 2-8-4(9). Both of those rules refer back to the Preventive Maintenance Plan requirement as described in 326 IAC 1-6-3. This Preventive Maintenance Plan rule sets out the requirements for:

(1) Identification of the individuals responsible for inspecting, maintaining and repairing the emission control equipment (326 IAC 1-6-3(a)(1)),

(2) The description of the items or conditions in the facility that will be inspected and the inspection schedule for said items or conditions (326 IAC 1-6-3(a)(2)), and

(3) The identification and quantification of the replacement parts for the facility which the permittee will maintain in inventory for quick replacement (326 IAC 1-6-3(a)(2).

It is clear from the structure of the wording in 326 IAC 1-6-3 that the PMP requirement affects the entirety of the applicable facilities. Only 326 IAC 1-6-3(a)(1) is limited, in that it requires identification of the personnel in charge of only the emission control equipment, and not any other facility equipment. The commissioner may require changes in the maintenance plan to reduce excessive malfunctions in any control device or combustion or process equipment under 326 IAC 1-6-5.

The CRP requirement of response steps and schedule requirements are another example of documenting procedures most permittees already have developed in the course of good business practices and the prevention of environmental problems. Equipment will often arrive with the manufacturer's trouble shooting guide. It will specify the steps to take when the equipment is not functioning correctly. The steps may involve some initial checking of the system to locate the exact cause, and other steps to place the system back into proper working order. Using the trouble shooting guide and the permittee's own experience with the equipment, the steps are taken in order and as scheduled until the problem is fixed.

A permittee will likely already have a procedure to follow when an unforeseen problem situation occurs. The procedure may list the staff to contact in order to select a course of action, or other step, before the equipment problem creates an environmental violation or interrupts the permittee's business process.

The Compliance Monitoring Plan (CMP) is consistent with IDEM's Compliance Monitoring Guidance released in May of 1996. The guidance discusses corrective action plans setting out the steps to take when compliance monitoring shows an out of range reading (Guidance, page 13). Some of the terminology has changed, as a result of comments from regulated sources, but the requirements in the permit do not conflict with the guidance.

Comment 4

Regarding Condition D.1.2, Preventive Maintenance Plan, there is no maintenance that we could perform that would affect the emissions from these facilities other than associated control equipment. Because of this, we do not believe that there is justification for requiring a preventive maintenance plan for more than the emissions control equipment. We request that D.1.2 specify that a preventive maintenance plan is only required for the emissions control equipment.

Removal of Preventive Maintenance Plan requirements for emission units where maintenance would have no effects on emissions follows recent decisions reached for Title V permit appeal cases. The following is an example of how Preventive Maintenance Plan related permit conditions have been revised:

“A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required **for only the control devices** of these facilities.”

Response 4

As there is no maintenance that could be performed that would affect the emissions from these facilities other than maintenance of associated control equipment, the permit has been revised as follows:

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for ~~this facility and any~~ **only the** control devices **of these facilities**.

Response 5

326 IAC 2-7-5(3) states that monitoring and related record keeping and reporting requirements which assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements or alternative requirements shall be included in each Part 70 permit issued under 326 IAC 2-7-5.

Condition C.10 applies to all records required in Section D. The purpose of Section C is to state general conditions once, so that they do not have to be restated in every subsection of Section D. Unless a term in Section D states otherwise, the Section C general term applies.

Condition C.10(c) requires additional observations and sampling should be taken if the equipment is operating but abnormal conditions prevail, with a record made of the nature of the abnormality. This is believed to be reasonable for the source to document whether abnormal conditions resulted in a deviation from any permit condition. Condition C.10(d) states that if for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded. Therefore, if the operator fails to make required observations, sampling, maintenance procedures, or record keeping because abnormal conditions prevail, the reasons for this must be recorded. There has been no change to this condition as a result of this comment.

Comment 6

(a) Regarding Condition D.1.3, Testing Requirements, we do not believe that compliance testing should be required by this permit. We have recently performed compliance testing on the thermal oxidizer and the results, which demonstrate compliance with the minimum 80.75% overall control efficiency, have been submitted to IDEM. The increase in the emissions due to the modification to the extruders will not affect the efficiency of the control device because the throughput on the repellitizer is not being increased. More specifically, the throughput increase is being added to the extruders which are not routed to the control device. The repellitizer is routed to the control device but is a separate operational unit with its own maximum throughput capacity. This throughput will not increase and the unit will essentially be run for more operating hours to accommodate the requested production increase.

If, however, the above changes will not be incorporated into the final permit, we believe that the following language should be used for this condition:

D.1.3 Testing Requirements [326 IAC 2- 7-6(1),(6)][326 IAC 2-1.1-11]

To demonstrate compliance with the minimum 80% overall control efficiency (including capture and destruction efficiency) required by Condition D.1.1, ~~during the period between 3 and 6 months after issuance of Significant Source Modification No. 143-12416-00016~~, within 60 days after achieving maximum production rate, but no later than 180 days after start-up, the Permittee shall perform VOC testing . . .

We believe that if performance testing will be required, the date of the testing should be based on production rather than the permit issuance date since the modification may not be completed for a few months after issuance of the modification.

(b) Regarding Conditions D.1.3, Testing Requirements, we wish to request that the following addition be made to the last sentence of this condition:

In addition to these requirements, IDEM may require compliance testing **in writing** when necessary to determine if the facility is in compliance.

Response 6

(a) The Best Available Control Technology (BACT) for the stationary polystyrene foam extrusion operation has been determined to be VOC emission control by a recuperative thermal oxidizer controlling 114 tons of VOC exhaust from the repelletizer for three (3) polystyrene extrusion lines, by capturing 38 tons per year of VOC from each of the three (3) polystyrene extruders. Testing is required to ensure that the controlled VOC emissions from the modified emission units do not exceed the BACT requirements for this modification. However, OAM has agreed to change the testing date to within five (5) years after the date of the valid compliance demonstration required by Condition 7, Performance Testing, of Operation Permit 143-9851-00016, issued on November 19, 1998. Also, as a requirement of Title V permits, the testing shall be performed every 5 years. Condition D.1.3 has been revised as follows:

(b) Condition D.1.3 has been revised to remove the phrase "In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance," and replace it with the most current testing requirement language. The changes to the permit are as follows:

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

To demonstrate compliance with the minimum 80.75% overall control efficiency (including capture and destruction efficiency) required by condition D.1.1, ~~during the period between 3 and 6 months after issuance of Significant Source Modification No. 143-12416-00016~~ **within five (5) years after the date of the valid compliance demonstration required by Condition 7, Performance Testing, of Operation Permit 143-9851-00016, issued on November 19, 1998**, the Permittee shall perform VOC testing utilizing Method 25 or other methods as approved by the Commissioner, to determine proper operating parameters for the thermal oxidizer, including minimum operating temperatures and fan speeds that will achieve 80.75% overall control efficiency (including capture and destruction efficiency) for this thermal incinerator. ~~In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.~~ **This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.**

Upon further review from the OAM, the OAM has decided to make the following changes to Section A.2 and Section D.1 of the Part 70 Operating Permit, and corresponding changes have also been made to the TSD:

The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Section A.2 and Section D.1 of the Part 70 Operating Permit have been revised to list the correct stack identification. The changes are as follows:

(a) Three (3) polystyrene foam tandem extruders, identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene, and exhausting through INCIN~~-1~~, and

Condition D.1.1 (c) and the Part 70 Source Modification Quarterly Report have been revised to list a limit based on a twelve (12) month consecutive period, instead of a monthly limitation. The changes are as follows:

> That usage of VOC, delivered to the three (3) polystyrene extrusion lines shall be limited to ~~75.55 tons per month~~ **906.66 tons per twelve (12) month consecutive period**. This is equivalent to VOC emissions of ~~14.20 tons per month~~ **170.43 tons per twelve (12) month consecutive period**. During the first 365 days of operation, VOC usage shall be limited such that the total VOC used divided by accumulated months of operation shall not exceed the limits specified.

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Genpak, LLC
845 South Elm Street,
Scottsburg, Indiana, 47170

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____,I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____ .
(Company Name)

4. I hereby certify that Genpak, LLC, 845 South Elm Street, Scottsburg, Indiana, 47170, has constructed the Foam Cup Line in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on September 28, 1999 and as permitted pursuant to **Construction Permit No. CP-143-12416, Plant ID No. 143-00016** issued on _____

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 20 _____ .

My Commission expires: _____

_____
Signature

_____
Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Significant Source Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Genpak, LLC
Source Location:	845 South Elm Street, Scottsburg, Indiana, 47170
County:	Scott
SIC Code:	3089
Operation Permit No.:	T143-11375-00016
Operation Permit Application Date:	September 24, 1999
Source Modification No.:	143-12416-00016
Permit Reviewer:	Phillip Ritz/EVP

The Office of Air Management (OAM) has reviewed a modification application from Genpak, LLC relating to the modification of the following emission units and pollution control devices related to the operation of the polystyrene extrusion operations:

Modified Emission Units and Pollution Control Equipment

The modification consists of the following modified emission units and pollution control devices:

(a) Three (3) polystyrene foam tandem extruders, identified as EPS-1, EPS-2 and EPS-3, each extruding a maximum of 1,400 pounds per hour polystyrene, and exhausting through INCIN-1, and

(b) One (1) Recuperative Thermal Oxidizer with a rated heat input of 1.0 million British thermal units (mmBtu) per hour, and exhausting through INCIN-1. This unit will control the existing repelletizer emissions.

History

On June 22, 2000, Genpak, LLC submitted an application to the OAM requesting to increase the capacity of three (3) existing polystyrene foam tandem extruders. Genpak, LLC's application for a Part 70 permit (T143-11375-00016) for the existing stationary source extruding and forming polystyrene foam products was received on September 24, 1999 and is currently being reviewed by IDEM.

Existing Approvals

The source applied for a Part 70 Operating Permit on September 24, 1999. The source has been operating under previous approvals including, but not limited to, the following:

(a) Operation Permit CP-143-9047-00016, issued on April 3, 1998;

(b) Operation Permit 143-9851-00016, issued on November 19, 1998;

(c) Significant Source Modification 143-11382-00016, issued on February 10, 2000; and

(d) Operation Permit 143-12201-00016, issued on June 14, 2000.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on June 6, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 3.)

Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	0.00
PM-10	0.00
SO_2	0.00
VOC	284.16
CO	0.00
NO_x	0.00

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC, 2-7-10.5(g)(4)(d), as it has a potential to emit equal to or greater than 25 tons per year of volatile organic compounds.

County Attainment Status

The source is located in Scott County.

Pollutant	Status
PM-10	attainment
SO2	attainment
NO2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Scott County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Scott County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	7.01
PM-10	7.01
SO_2	0.00
VOC	92.35
CO	0.37
NOx	0.44

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based upon the existing Source Status of construction permit CP-143-9851-00016.

Potential to Emit After Controls for the Modification

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units for the modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
EPS-1	0.00	0.00	0.00	56.81	0.00	0.00	0.00
EPS-2	0.00	0.00	0.00	56.81	0.00	0.00	0.00
EPS-3	0.00	0.00	0.00	56.81	0.00	0.00	0.00
Total Emissions	0.00	0.00	0.00	170.43	0.00	0.00	0.00
PSD Significant Level	250	250	250	250	250	250	NA

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2 and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) because the potential emissions of any pollutant are less than two hundred fifty (250) tons per year and it is not one of the 28 listed source categories for this rule.

326 IAC 2-6 (Emission Reporting)

This source is subject to the requirements of 326 IAC 2-6 (Emission Reporting), because the source has the potential to emit more than 100 tons per year of VOC. Pursuant to this rule, the owner/operator of this source must annually submit an emission statement of the source. The annual statement must be received by July 1 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emissions Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), visible emissions shall meet the following, unless otherwise stated in this permit:

(a) Visible emissions shall not exceed an average of forty percent (40%) opacity in twenty-four (24) consecutive readings as determined by 326 IAC 5-1-4,

(b) Visible emissions shall not exceed sixty percent (60%) opacity for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (New Facilities: General Reduction Requirements)

The Foam Cup Line is subject to the provisions of 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) because the potential volatile organic compound (VOC) emissions are greater than twenty-five tons per year and it was constructed after the January 1, 1980 applicability date.

The BACT analysis for VOC was performed by the applicant and was conducted in accordance with the "Top Down BACT Guidance" U.S. EPA, Office of Air Quality Planning and Standards, March 15, 1990. The BACT analysis includes control technologies found in the U.S. EPA RACT/BACT/LAER Clearinghouse database and State Regulatory Agencies. The major pollutant specified was VOCs and similar sources were identified as "polystyrene foam production." Table A below summarizes the search.

(A)

Company/Location	Facility Description	Control Requirements
Tenneco Plastics Covington, GA	polystyrene foam packaging and polyethylene extrusion	Regenerative Thermal Oxidizer / 249 tpy VOC limit
Polco Packaging Lawrenceville, GA	polystyrene foam sheet extrusion packaging	Regenerative Thermal Oxidizer
Polco Packaging Decatur, IN	Polystyrene extrusion	Regenerative Thermal Oxidizer
Genpack, LLC Cedar City, Utah	2 extruders	No add-on controls

In cases where control equipment has been required, one of the most frequently chosen options has been regenerative thermal oxidations.

The options considered in the BACT analysis for the polystyrene foam extrusion operation are:

(1) Recuperative Thermal Oxidizer
(2) Regenerative Thermal Oxidation
(3) Recuperative Catalytic Incinerator
(4) Regenerative Catalytic Incinerator
(5) Flare
(6) Carbon Adsorption
(7) Carbon Adsorption-Oxidation

Options (2) through (7) have been determined to have a low to moderate technical feasibility for the following reasons:

<u>Regenerative Thermal Oxidation</u>

(2) Plastic particulates can settle on the beds and cause fires, lower heat transfer and lower removal efficiency.

<u>Recuperative Catalytic Incinerator</u>

(3) Plastic particulates can settle on the beds and cause fires, lower heat transfer and lower removal efficiency.

Regenerative Catalytic Incinerator

(4) Plastic particulates can settle on the catalyst and cause fires, and lower removal efficiency.

Flare

(5) Concentration requirement is high (>13,000 ppm). It is difficult to sustain the flame.

Carbon Adsorption

(6) Plastic particulates can settle in the chamber and cause fires, and lower removal efficiency. There is a fire or explosion hazard in the carbon chamber.

Carbon Adsorption-Oxidation

(7) Plastic particulates can settle in the chamber and cause fires, and lower removal efficiency. There is a fire or explosion hazard in the carbon chamber.

The technically feasible option is recuperative thermal oxidation. Genpak has evaluated the VOC reduction for thermal oxidation based on assumed 95% destruction efficiency of the thermal incinerator and 85% capture of the blowing agent. In order to evaluate the economic feasibility of recuperative thermal oxidation for various sources of VOC emissions as well as all potential VOC emissions, Genpak evaluated nine (9) control scenarios.

1. Extruder for three (3) polystyrene extruders
2. Silo and Repelletizer for three (3) polystyrene extruders
3. Silo, Repelletizer and CPET for three (3) polystyrene extruders

The tables B through D below show the results of the cost analysis.

(B) Capital Cost

Option	Base Price	Direct Cost	Indirect Cost	Total
Extruder for 3 PS	$195,098.00	$137,995.00	$48,740.00	$381,836.00
Silo and Repelletizer for 3PS	$518,130.00	$1,788,843.00	$122,438.00	$2,429,414.00
Repelletizer and Silo for 3 PS and 1 CPET Extruder	$518,130.00	$1,570,713.00	$172,438.00	$2,261,284.00

(C) Annual Operating, Maintenance & Recovery Cost

Option	Direct Cost	Indirect Cost	Capital Recovery Cost	Total
Extruder for 3 PS	$104,760.00	$0.00	$100,727.00	$205,487.00
Silo and Repelletizer for 3 PS	$814,320.00	$0.00	$504,191.00	$1,318,511.00
Repelletizer and Silo for 3 PS and 1 CPET Extruder	$814,320.00	$0.00	$596,520.00	$1,410,840.00

(1) Total Cost includes Direct, Indirect, and Capital Recovery Costs.

(D) Evaluation

Option	Potential Emissions (tons/yr)	Emissions Removed (tons/yr)*	Control Efficiency (%)	$/ton Removed
Extruder for 3 PS	322	114	35.40%	$1,803.00
Silo and Repelletizer for 3 PS	322	205	63.66%	$6,432.00
Repelletizer and Silo for 3 PS and 1 CPET Extruder	322	216	67.08%	$6,532.00

Methodology:
Emissions removed = (potential emissions from repelletizer) * (control efficiency)
$/ton removed = total annual cost / emissions removed

The cost breakdown is as follows:

1. Capital Cost
   (a) Base price: purchase price, auxiliary equipment, instruments, controls, taxes and freight.
   (b) Direct installation cost: foundations/supports, erection/handling, electrical, piping, insulation, painting, site preparation and building/facility.
   (c) Indirect installation cost: engineering, supervision, construction/filed expenses, construction fee, start up, performance test, model study and contingencies.

2. Annual Cost
   (a) Direct operating cost: operating labor (operator, supervisor), labor and material maintenance, operating materials, utilities (electricity, gas).
   (b) Indirect operating cost: overhead, property tax, insurance, administration and capital recovery cost (for 10 years life of the system at 10% interest rate).

Genpak's economic analysis of system operation shows a cost of $1,803 to $6,532 per ton VOC removed by recuperative thermal oxidation. Since the evaluated BACT controls indicate that the one (1) polystyrene repelletizer was the most cost efficient method, Genpak proposes BACT to be the use of recuperative thermal oxidation on the one (1) polystyrene repelletizer exhaust. Therefore, BACT for the stationary polystyrene foam extrusion operation has been determined to be VOC emission control by a recuperative thermal oxidizer controlling 114 tons of VOC exhaust from the repelletizer for three (3) polystyrene extrusion lines, by capturing 38 tons per year of VOC from each of the three (3) polystyrene extruders.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The polystyrene foam repelletizing line (ID EPS-1, EPS-2 and EPS-3) has applicable compliance monitoring conditions as specified below:

   That the thermal incinerator shall operate at all times that the polystyrene foam repelletizing line is operated and exhausting to the outside atmosphere. When operating, the thermal incinerator shall maintain a minimum operating temperature of 1,400° F or a temperature, fan amperage and duct velocity determined in the compliance tests to maintain a minimum 80.75% overall control efficiency (including capture and destruction efficiency) of VOC emissions from the repelletizer for three (3) polystyrene extrusion lines. Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

   These monitoring conditions are necessary because the thermal incinerator for the polystyrene foam repelletizing line must operate properly to ensure compliance with 326 IAC 8-1-6 (Best Available Control Technology (BACT)) and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

None of the listed air toxics will be emitted from this source.

Conclusion

The operation of this modification of emission units and pollution control devices related to the operation of the polystyrene extrusion operations shall be subject to the conditions of the attached proposed **Significant Source Modification No. 143-12416-00016.**

Total Source Emissions

Appendix A: Emission Calculations
From Polystyrene Foam Extrusion

Company Name: Genpak, LLC
Address City IN Zip: 845 South Elm Street, Scottsburg, IN 47170
CP: 143-12416
Plt ID: 143-00016
Reviewer: PR/EVP
Date: June 22, 2000

Controlled Emissions (tons/year)

Pollutant	Emissions Generating Activity EPS-2	EPS-2	EPS-3	**TOTAL** tons per year
PM	0.00	0.00	0.00	**0.00**
PM10	0.00	0.00	0.00	**0.00**
SO2	0.00	0.00	0.00	**0.00**
NOx	0.00	0.00	0.00	**0.00**
VOC	94.72	94.72	94.72	**284.16**
CO	0.00	0.00	0.00	**0.00**
total HAPs	0.00	0.00	0.00	**0.00**
worst case single HAP	0.00	0.00	0.00	**0.00**

Potential Emissions (tons/year)

Pollutant	Emissions Generating Activity EPS-2	EPS-2	EPS-3	**TOTAL** tons per year
PM	0.00	0.00	0.00	**0.00**
PM10	0.00	0.00	0.00	**0.00**
SO2	0.00	0.00	0.00	**0.00**
NOx	0.00	0.00	0.00	**0.00**
VOC	56.81	56.81	56.81	**170.43**
CO	0.00	0.00	0.00	**0.00**
total HAPs	0.00	0.00	0.00	**0.00**
worst case single HAP	0.00	0.00	0.00	**0.00**

Total emissions based on rated capacity at 8,760 hours/year, before control.

VOC Emissions
From Polystyrene Foam Extrusion

Company Name: Genpak, LLC
Address City IN Zip: 845 South Elm Street, Scottsburg, IN 47170
CP: 143-12416
Plt ID: 143-00016
Reviewer: PR/EVP
Date: June 22, 2000

	Install Date	Throughput			Potential Emissions									Potential Emissions after Controls (100% Capture and 99.9% control on EPS Repelletizer)			
		Description	Average Rate (lb/hr)	Maximum Rate (lb/hr)	Extrusion, Warehouse and Thermoform lb/hr	Extrusion, Warehouse and Thermoform ton/yr	Repelletizer lb/hr	Repelletizer ton/yr	Silo lb/hr	Silo ton/yr	Total lb/hr	Total lb/day	Total ton/yr	Extrusion, Warehouse, and Thermoform ton/yr	Repell ton/yr	Silo ton/yr	Total ton/yr
EPS-1	04/17/98	Virgin Regrind Blow. Ag.	978 422 69	978 422 69	2.28	9.97	10.72	46.95	8.63	37.80	21.63	519.04	94.72	9.97	9.04	37.80	56.81
EPS-2	12/08/98	Virgin Regrind Blow. Ag.	978 422 69	978 422 69	2.28	9.97	10.72	46.95	8.63	37.80	21.63	519.04	94.72	9.97	9.04	37.80	56.81
EPS-3	not installed	Virgin Regrind Blow. Ag.	978 422 69	978 422 69	2.28	9.97	10.72	46.95	8.63	37.80	21.63	519.04	94.72	9.97	9.04	37.80	56.81

METHODOLOGY:
During extrusion, warehousing, and thermoforming there is an 3.3% loss of blowing agent (Confidential Information).
After extrusion, warehousing, and thermoforming, 35% of the materials are reground.
During regrindr there is a 100% loss of blowing agent, 85% of which is captured and controlled at 95% efficiency.
E.G. (42*0.08 loss of blowing agent = 3.36 lbs/hr) and (42*0.967 remains after thermoforming*0.29 scrap*1.0 = 11.78 lbs /hr), 55.4% from repell and 44.6% from silo.
Blowing agent (Classified Information) is the only material containing VOCs in this facility. The max rate is for the blowing agent usage in polystyrene extrusion.